

Claims:

1. A process for preparing silicone-containing
5 copolymers of an ethylenically unsaturated organic
monomer and a silicone macromer in the form of
their aqueous polymer dispersions or water-
redispersible polymer powders by means of free-
radically initiated polymerization in an aqueous
medium and, if appropriate, drying of the polymer
10 dispersion obtainable in this way, characterized
in that the polymerization is carried out in the
presence of a water-soluble initiator and an oil-
soluble initiator.
- 15 2. The process as claimed in claim 1, characterized
in that the proportion of silicone macromer and
part of the ethylenically unsaturated organic
monomers are initially charged and the
polymerization is started in the presence of an
20 oil-soluble initiator, and the remainder of the
ethylenically unsaturated organic monomer and the
water-soluble initiator are subsequently added.
- 25 3. The process as claimed in claim 2, characterized
in that the initial charge is polymerized to a
conversion of from 10 to 100%, the remaining
monomers are then metered in and polymerized by
means of a water-soluble initiator which is
likewise fed in.
- 30 4. The process as claimed in any of claims 1 to 3,
characterized in that one or more monomers from
the group consisting of vinyl esters of unbranched
or branched alkylcarboxylic acids having from 1 to
35 15 carbon atoms, methacrylic esters and acrylic
esters of alcohols having from 1 to 15 carbon
atoms, vinylaromatics, olefins, dienes and vinyl
halides are used as ethylenically unsaturated
organic monomers.

5. The process as claimed in any of claims 1 to 4,
characterized in that one or more compounds from
the group consisting of linear, branched and
cyclic silicones having at least 10 siloxane
repeating units and having at least one free-
radically polymerizable functional group are used
as silicone macromers.
6. The process as claimed in any of claims 1 to 5,
characterized in that one or more compounds from
the group consisting of silicones having the
general formula $R^1_a R_{3-a} SiO(SiR_2O)_n SiR_{3-a} R^1_a$, where the
radicals R are identical or different and are each
a monovalent, substituted or unsubstituted alkyl
radical or alkoxy radical having from 1 to 18
carbon atoms, R^1 is a polymerizable group, a is 0
or 1 and $n = 10$ to 1000, are used as silicone
macromers.
7. The process as claimed in claim 6, characterized
in that vinyl acetate or a mixture of vinyl
acetate and ethylene is copolymerized with a
silicone macromer from the group consisting of
 α, ω -divinylpolydimethylsiloxane, α, ω -di(3-
acryloxypropyl)polydimethylsiloxane and α, ω -di(3-
methacryloxypropyl)polydimethylsiloxane.
8. The process as claimed in any of claims 1 to 7,
characterized in that one or more auxiliary
monomers from the group consisting of
precrosslinking or postcrosslinking comonomers are
used.
9. The use of the process products from any of claims
1 to 8 in adhesives, coating compositions and as
binder for consolidating particulate materials.
10. The use of the process products from any of claims
1 to 8 as modifiers, hydrophobicizing agents,

polishes, release agents and as additives in surface coating compositions and cosmetic formulations.

- 5 11. The use of the process products from any of claims 1 to 8 for textile treatment, textile coating, textile dressing and textile finishing and also in the fabric care sector.

- 10 12. The use of the process products from any of claims 1 to 8 as binders in the building sector for paints, adhesives and coating compositions.